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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,531

03/11/2004

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N0185US

8760

37583 7590 10/06/2009  
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EXAMINER

HU, KANG

ART UNIT

PAPER NUMBER

3715

MAIL DATE

DELIVERY MODE

10/06/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/798,531	<b>Applicant(s)</b> UHLIR ET AL.	
	<b>Examiner</b> KANG HU	<b>Art Unit</b> 3715	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/3/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/3/2009 has been entered. Claims 1-32 are pending in the current application.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 14-32 are rejected under USC 101, the claimed invention is directed to non-statutory subject matter. In order for a claimed process to be considered statutory it must be: (1) tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. The use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility; the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity; and the transformation must be central to the purpose of the claimed process. With respect to claims 14 and 29, the claims recite a method of operating a computer game that runs on a computer platform. The methods do not transform a particular article into a different state or thing, a showing of physical transformation requires an actual change in the state of a physical object involved in the

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process, such as a method for curing rubber. The methods further do not make any explicit recitations of a particular machine which is critically tied to the performance of the method. Generally the method is directed to operating a computer game, the recitation of "using an application programming interface program that runs on the computer platform" does not explicitly recite a tie to a particular machine, as computer platform is interpreted to be both hardware and software. Dictionary.com defines platform as "a. hardware platform b. software platform"; Merriam-Webster defines platform as "operating system"; For at least these reasons, one would interpret computer platform to be either one of hardware or software, therefore the claims do not recite a particular machine which is critically tied to the performance of the method.

Claims 15-28 and 30-32 are also rejected for their dependency of claims 14 and 29 for failing to correct these deficiencies and therefore rejected for the same reason.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended claim 1 to recite "wherein a computer game play scenario based on the data is displayed on the user interface, wherein the computer game play scenario corresponds to a virtual position for display on

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the user interface in which the virtual position is independent of the user's actual physical location.” The examiner did not find any support for at least the feature of where the virtual position is independent of the user’s actual physical location in the specification. Claims 2-13 are also rejected for their dependency through incorporation of claim 1.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 9-19 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsu et al. (US 2004/0176936 A1) in view of Ashby (US 6,047,280). Re claims 1, 14, 15, and 16, Ohtsu teaches a game engine program configured for running on a computer platform and for presenting a computer game to a user via the user interface (¶ 42-45: simulation unit, display unit); and an application programming interface program configured for running on the computer platform, for accepting requests for data from the game engine program, for accessing the data from the map database (Ohtsu ¶ 49, road traffic environment database), and for providing the data in a suitable format to the game engine program (simulator unit includes a road traffic environment database); wherein the map database, the user interface, the game engine program, and the application programming interface program are stored on at least one computer-readable medium (Ohtsu ¶ 1),

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and wherein a computer game play scenario based on the data is displayed on the user interface, wherein the computer game play scenario corresponds to a virtual position for display on the user interface in which the virtual position is independent of the user's actual physical location (player in virtual environment).

Ohtsu does not teach of map database containing data that represent roads in a real-world geographic locale, Ohtsu teaches of road database further includes map data regarding the locations, shapes of the road, buildings, traffic facilities, traffic lights and impassable zones (turn restriction content). But Ohtsu does not teach of having real-world navigation on the roads in real-world geographic locale. However Ashby teaches of having a map database containing data that represents roads in a real-world geographic locale, the data including navigation-related attributes, including turn restriction content, for real-world navigation on the roads in the real-world geographic locale (Ashby, col 1, lines 33-49 and col 5, lines 17-28); It would have been obvious to one of ordinary skill at the time of the invention to combine the teaches of Ashby to Ohtsu to provide a real-world geographic locale in order to provide a more realistic environment to the simulation driver.

Re claim 9, application programming interface program is further configured for providing for spatial queries of data from the database (Ashby, col 27, lines 22-34).

Re claim 10 24, Ohtsu teaches of having a game application shell that includes basic logic, rules, strategy(Ohtsu ¶ 42: computes the behaviors such as position, speed, acceleration and direction of the plurality of mobile units, and characters (Ohtsu ¶ 49

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virtual driver) for a type of computer game (simulation), wherein the game application shell is configured for access by the game engine program (Ohtsu ¶ 43: simulation unit).

Re claim 11 25, Ohtsu teaches computer game is of a type selected from a group consisting of: a road rally game (driving simulation).

Re claim 12 26, Ohtsu teaches the game engine program is configured for performing specific tasks and for operating on an as-needed basis during game play (Ohtsu ¶ 53: the simulation establishes a path point where the subject mobile unit should pass, and target direction and target speed of the mobile unit is computed)

Re claim 13 27, Ohtsu teaches of game engine program comprises at least one selected from the group consisting of: logic engines, rules engines, animation engines, graphics engines, and user interface engines (Ohtsu ¶ 42, 47 and 49).

Re claim 17, Ohtsu teaches of determining a curve through data points used in the map database to represent linearly extending feature, wherein the curve is used for display of at least one of the linearly extending features by the computer platform as part of a game play scenario of the computer game (Ohtsu Fig 4, set path);

Re claims 18 and 19, Ohtsu teaches combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related

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things by the computer platform as part of a game play scenario of the computer game, the road-related things include at least a traffic signal (Ohtsu ¶ 64).

Re claim 28, Ashby teaches the real-world navigation includes vehicle route calculation and vehicle route guidance corresponding to the roads in a real-world geographic locale (Ashby, col 4, line 59).

Re claim 29, in addition to the teachings of claim 1, Ashby further teaches using the application programming interface to access the geographic data from a map database (Ashby, col 5, lines 39-40: data access interface layer), the geographic data including a plurality of road segment records that represent portions of roads in a real-world geographic locale (Ashby, fig 3, application software, route calculation, map display, direction generation, map matching, user interface, etc.), wherein each of the road segment records corresponds to navigation-related functions for real-world navigation on the roads in the real-world geographic locale, the navigation-related attribute data including (i) geographic coordinates (Ashby, col 1, lines 43-45: the detailed geographic data set may include information about the positions of roads and intersections in or related to one or more specific geographic regional areas); (ii) a street name (col 9, line 62), (iii) an address range, (iv) a turn restriction (Ashby, col 2, line 47), and (v) road shape (Ashby, col 32, line 23: shape point information);



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Using the application programming interface to provide the geographic data from the map database in a suitable format to the game engine program (Ashby, col 5, lines 39-40: data access interface layer).

Re claim 30, application programming interface requests data representing all road segment records within a selected area from the map database as a function of spatial query, the spatial query defining the selected area (Ashby, col 9, lines 34-62).

Re claim 31, Ashby teach the selected area is defined by a longitude and latitude point and a radial distance from the longitude and latitude point. (Ashby, col 9, lines 42-45: query requests can be qualified by geographical parameters or attributes).

Re claim 32, the selected area is defined by a rectangular area having specified geographic boundaries (Ashby, col 9, line 60 – rectangular queries).

8. Claims 2-8 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsu et al. (US 2004/0176936 A1) in view of Ashby (US 6,047,280) further in view of Virtual GIS: A REAL-TIME 3D GEOGRAPHIC INFORMATION SYSTEM (NPL submitted 01/09/2008) hereon after known as Virtual GIS.

Re claim 2, Ohtsu and Ashby does not teach of a 3D function configured for converting geographic data from the map database to a perspective view for display in the computer game. Virtual GIS teaches "the ability to have detailed 3D views and to jump..." and "Planners for new buildings or other facilities can see full 3D views from their

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prospective sites... in addition, they can use the GIS database to display..." on page 2, col 1, lines 25-30 and lines 35-37). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Ashby with Virtual GIS to transform geographic data from the map database into perspective views because such method is known for better visualization than a traditional GIS. Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface.

Virtual GIS further teaches:

Re claim 3, a smoothing function configured for determining a curve through data points used in the map database to represent a linearly extending feature, wherein the curve is used for display of the linearly extending feature in the computer game (Virtual GIS: 2.1

Datasets: "Terrain surfaces are visualized as a mesh of shaded or textured polygons.

Additional non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways" Page 4, col 1, lines 1-10).

Re claim 4, an integration function configured to combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related things (Virtual GIS: 2.1 Datasets: "Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways.." Page 4, col 2, lines 19-26).

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Re claim 5, road-related things include at least one selected from the group consisting of: road colors, road pavement, lane stripes, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks (Virtual GIS: 2.1 Datasets: “non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways” and “Information such as soil type, road surface, or foliage density can be stored in these GIS layers and be rendered”, page 4, col 1, lines 1-22).

Re claim 6, an integration function configured for combining 3D model data with data that represent roads from the map database to provide realistic visual representation of polygon shaped features in the geographic locale (Virtual GIS: 2.1 Datasets: “Terrain surfaces are visualized as a mesh of shaded or textured polygons”, page 4, col 1, lines 3-4).

Re claim 7, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 8, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of

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one of the group consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 20, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of polygon shaped features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Terrain surfaces are visualized as a mesh of shaded or textured polygons”, page 4, col 1, lines 3-4).

Re claim 21, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 22, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of one of the group consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds in the geographic locale by

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the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 23, application programming interface program is further configured for providing for spatial queries of data from the map database (Virtual GIS: 2.2.2 Query: users of the system can access this database by directly querying objects in the virtual environment, page 5).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ashby with Virtual GIS to Ohtsu to use known methods to transform geographic data from the map database into perspective three dimensional views because such method is known for better visualization than a traditional GIS. Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface

### ***Response to Arguments***

9. Applicant's arguments filed on 8/3/2009 have been fully considered but they are not persuasive.

Applicant asserts that the claims act upon data and transforms or uses that data to provide a different state by accessing geographic data and providing the data in a suitable format

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to present a game scenario on a user interface. Stating that presenting a game scenario on a user interface of a computer platform to a user is a tangible end result, and therefore making the claim patent-eligible. After careful consideration, the examiner respectfully disagrees. The process of transformation and tangible result refers to a real world physical transformation, where a showing of physical transformation requires an actual change in the state of a physical object involved in the process, such as a method for curing rubber. Presenting data on a user interface does not qualify for a real world physical transformation. Further, the steps of the method at best retrieve and present data, the data itself is not altered or transformed.

10. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KANG HU whose telephone number is (571)270-1344. The examiner can normally be reached on 8-5 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-262-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Kathleen Mosser/  
Primary Examiner, Art Unit 3715

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